PROPOSALS FOR STANDARDS CHANGES THAT ARE RELATED TO THE COMMISSION'S TOP PRIORITY MEASURES

The Commission's top priority measures are in the following numbered list. Under each top priority measure are proposals made by others that are related to the top priority measure. Persons responsible for the primary investigation for each top priority measure are expected to familiarize themselves with and consider the proposals made by others that are related to the top priority measure. Shown in parentheses after each proposal is the name of the proposer. CEC proposals can be found at http://www.energy.ca.gov/2005_standards/documents/2001-11-08_MEASURES.PDF**.**
For templates proposed by others, the author's name and number that is listed in the *Measure Information Templates Proposed by Others* file is also provided. These templates can be found at:
http://www.energy.ca.gov/2005_standards/documents/public_comments/measure_information/.
For proposals by others that were in the form of comments rather than a template, Public Comments appears in parenthesis followed by the name of the file in the *Public Comments Directory*. These proposals can be found at:
http://www.energy.ca.gov/2005_standards/documents/public_comments/.

1. **Time Dependent Valuation (TDV) [CEC]**
   Time Dependent Valuation (TDV) Economics (PG&E – Heschong-1)
   Time Dependent Valuation (TDV) Hourly Residential Modeling (PG&E – Heschong-2)
   Time Dependent Valuation (TDV) HVAC System Performance (PG&E – Heschong-3)
   Residential HVAC System Modeling (CEC)
   EER/SEER as Indicators of Cooling Efficiency (SCE – Ander-1)
   Gas Cooling Technologies (SCG – Springer)
   Hourly Water Heating Model for TDV Analysis (CEC)
   Residential Computer Modeling (CEC)

2. **Residential Air Conditioner Sizing [CEC]**
   Res and Nonres AC Sizing (Public Comments - Farber)
   Res and Nonres Sizing - Accounting for Structural Shading (Public Comments - Farber)
   Installed Air Conditioner System Efficiency (CEC)

3. **Residential Construction Quality [CEC]**
   Insulation Depth Gauges (JJH – Gates-07)
   Structural Insulated Panels (Sunworks – Stahl)
   Re-evaluate Prescriptive Residential U-Factors (NAIMA – Ware-8)

4. **Residential Duct Systems [CEC]**
   Flex Duct Insulation (JJH – Gates-09)
   R-8 as a Mandatory Minimum Duct Insulation (NAIMA – Ware-5)
   R-8 Duct Insulation in Residential and Commercial Duct Systems (Public Comments - Lamborn_DuctValu)

5. **Improvements for Existing Homes [PG&E – Mahone10]**
   Application of the Standards to Alterations (CEC)
   Replacement Fenestration (Cardinal – DeVito-1)
   Energy Efficiency Improvements to Existing Buildings (Cardinal – DeVito-7)
   Window Retrofit (ICA – Burt)
   Revise the Requirements for Alterations (NAIMA – Ware-6)
   Residential Additions and Alterations (HoganSeattle)

6. **Performance Verification of Nonresidential Systems and Equipment [CEC]**
   Completion and Commissioning Requirements (HoganSeattle)

7. **Residential Fenestration [CEC]**
   25% Glazing Area Package (Cardinal – DeVito-4)
   Improved Cost Effective Prescriptive Values (Cardinal – Devito-6)
   Glazing Area (CABEC)
   Multifamily Standard (PG&E – Mahone16)
   Residential Fenestration U-value (Public Comments – Farber)
   Residential West Glazing (Public Comments - Farber)
   Res Fenestration Area (Public Comments - Farber)
   Res Multi-Family Glazing Area (Public Comments - Farber)
   Eliminate Assumption that all Greenhouse Windows Meet Package D Requirements (Public Comments - Farber)

8. **Water heating in Multi-Family [PG&E – Mahone14]**
   Central System Standard Design for Multifamily Buildings (CEC)
   Multifamily Standard (PG&E – Mahone16)
   Multifamily Water Heating (ControlledEnergy)
   Multifamily Solar Water Heating Calculations (Sun Earth - Plaisted)
   Compare Multi-Family Water Heating Systems - Individual to Individual; Central to Central (Public Comments – Farber)
   Modeling of Residential Large Storage Tank/Boiler Water Heaters (Public Comments – Farber)
   Make Blanket Requirements for <.58 water heaters apply Consistently for Combined Hydronic vs. Boiler systems (Public Comments – Farber)
   Multi-Family / Hi-rise Res DHW (Dodd_Followup)

9. **Water Heating Distribution Loss Performance Improvement Options [CEC]**
   Insulated Kitchen Piping (JJH – Gates-12)
   Undersink Hot Water Recirculation (Hutslar-1, Hutslar-2)
   Residential Gas Instantaneous Water Heaters (Controlled Energy)
   Residential Tankless Gas-Fired Water Heaters (Public Comments – Farber)
   Evaluate Highrise DHW Recirculation Control Credit (Public Comments – Farber)
   Modeling of Residential Large Storage Tank/Boiler Water Heaters (Public Comments – Farber)
   Determine Appropriate Credits for MF Recirculation Systems (Public Comments – Farber)

Determine Appropriate Credits for SF Recirculation Systems (Public Comments – Farber)
Account for the Use of Heat Tape in DHW Systems (Public Comments – Farber)
Retrofit DHW Recirc (Public Comments – Farber)

10. **Revise Mandatory Minimum Duct Insulation to R-8 for Nonresidential Occupancies [NAIMA – Ware-4]**
    Nonresidential Duct Insulation (CEC)
    R-8 duct insulation in Residential and Commercial Duct Systems (Public Comments – Lamborn_DuctValu)

11. **Improvements for Existing Light Commercial Builldings [PG&E – Mahone09]**
    Energy Efficiency Improvements to Existing Buildings (Cardinal – DeVito-7)
    Existing Lighting System Alterations (CEC)
    Nonresidential Additions and Alterations (HoganSeattle)
    Specify SHGC for Small Glass Additions (Public Comments – Farber)

12. **Lighting Power Allowances –Complete Building Method [CEC]**
    Elimination of Controls credits (CEC)
    Lighting Control Credits (HoganSeattle)
    Eliminate Retail Occupancy Type (Public Comments – Farber)
    Eliminate Retail from Complete Building Approach (Public Comments – Farber)
    Complete Building Approach (Gabel)

13. **Lighting Power Allowances --Area Category Method [CEC]**
    Elimination of Controls Credits (CEC)
    Lighting Control Credits (HoganSeattle)
    Define Area for Bank/Financial (Public Comments – Farber)
    Area Category Approach (Gabel)

14. **Demand Control Ventilation [PG&E – Mahone07]**
    Demand Control Ventilation (Dodd_Followup)

15. **Cool Roofs--Prescriptive Requirement [PG&E – Mahone01]**

16. **Automatic Controls to Shed Load [Wattstopper – Jepsen-11]**

17. **Air Side Economizers [CEC]**
    Economizers (HoganSeattle)
    Evaluate Problem that Economizers on Package Rooftop AC Fail to Provide > 40% Outside Air (Public Comments – Farber)

18. **Hydronic System Measures [CEC]**
    VSD Pump Control (JJH – Gates–06)
    Variable Speed Pumps (Dodd_Followup)

19. **Electrically Commutated Motors in Series Terminal Units [HoganSeattle]**

20. **Cooling Towers [PG&E - Mahone06]**
    Condenser Temperature Relief (JJH – Gates –01)

21. **Lighting Controls Under Skylights [PG&E – Mahone18]**
    Daylighting Controls (CEC)
    Require Skylights (SunOptics)
    Automatic Controls for Lighting in Daylit Zones (HoganSeattle)
    Include Daylighting from Skylights and Controls in Basis of Nonres Standards (Public Comments – Johnson)

22. **Simplification of Tailored Method [CEC]**
    Eliminate Retail from Complete Building Approach (Public Comments - Farber)
    Eliminate Credit for Low LPDs in Merchandise Sales Areas (Public Comments - Farber)
    Establish Limits for Wall Display Lighting (Public Comments - Farber)
    Eliminate Feature Sales Display Credits (Public Comments - Farber)
    Public Display Credit (Public Comments - Farber)
    Tailored LPD Approach (Gabel)

23. **Size Thresholds for VAV Fan Controls [CEC]**
    VSD Fan Control (JJH – Gates-05)
    Variable Speed Fans (Dodd_Followup)

24. **Staged-Volume Fan Control [SCE – Ander-2]**
    Packaged Single Zone VAV (CEC)
    Variable Speed Fans (Dodd_Followup)

25. **Hardwired Lighting [PG&E – Mahone12]**
    High Efficacy Lighting in Utility Spaces (CEC)
    High Efficacy Lighting in Bathrooms (CEC)
    High Efficacy Lighting in Hotel/Motel Guest Quarters (CEC)
    Exterior Lighting (CEC)
    Changes to Residential Lighting (NRDC – Horowitz)
    Recessed Lighting (CEC)
    Require Fluorescent Fixtures to be IC (Public Comments – Farber)
    Photocell Requirement on all Residential Exterior Lighting (Public Comments – Farber)

26. **ModularClassrooms [PG&E – Mahone15]**
    Include Modular Buildings in Standards (Takaki)
    Allow Multi-Orientation Compliance for Nonres (Public Comments – Farber)

27. **Revise Prescriptive Envelope Requirements for Nonresidential Occupancies [NAIMA – Ware-1]**
    Prescriptive Mass Wall Insulation (Dodd_Followup)

28. **T-bar Ceilings [CEC]**
    Duct Tightening (PG&E – Mahone08)
    T-bar Ceilings (Public Comments – Farber)